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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,239	07/14/2003	Kabir Siddiqui	50037.191US01	8965

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EXAMINER

SHENG, TOM V

ART UNIT PAPER NUMBER

2677

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/620,239	Applicant(s) SIDDIQUI, KABIR	
	Examiner Tom V. Sheng	Art Unit 2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-24 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/12/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:
2. The drawings are objected to because fig. 1, 3, 4a, 4b, 4c, 4d and 5 are too dark to view the various features. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

3. Claims 1-24 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: none of prior arts of record teaches the limitations regarding the wheel or wheel means, captivated shaft or shaft means, and frame or frame means of independent claims 1, 11 and 23.

Jorgensen et al. (US 6,930,259 B1) teaches an electromechanical roller key assembly for generation of digital control signals. In one embodiment, Jorgensen teaches the use of an encoding module 106 (fig. 1 and 2) that encodes rotation of a roller 101 via the interaction between a shaft 107 and a coding member 201 within the encoding module 106. In another embodiment (fig. 3), Jorgensen teaches the use of an encoding disc 300 placed at one end of a roller 101 and make and break contacts with contact members 335, 336 and 340 formed at one end of a metal frame 320 that engages the encoding disc 300.

Aquilar et al. (US 6,813,509 B2) teaches a rotary switch for encoding signal based on the rotation of the switch. In one embodiment (fig. 3), Aquilar teaches a roller switch 200 that has a roller barrel 230, an encoder pattern 210 disposed on a cylinder 220, a carriage 240 and a hinge member 250. The cylinder 220 is attached to one end of the roller barrel 230 and interacts with two sensors. In another embodiment (fig. 4a),

Aquilar teaches a roller barrel 330 with a cylinder 320 protruding from one end and carrying an encoder pattern 310. As the roller barrel is rotated, the encoder pattern 310 moves relative to three fixed sensors 300, resulting in generation of encoding signal.

Sawada et al. (US 6,862,459 B2) teaches a switching device. The switching device 11 (fig. 5-9) includes a jog dial 20, operating button switches 21 located to each end of the jog dial, and a rectangular frame 22 to support the jog dial and the button switches. In particular, the jog dial 20 includes a cylindrical dial 23 supported by a pair of spindle bearings 26 of a base plate 25. Various contacts are provided inside the base plate 25 and encoders are built in the spindle bearings 26.

None of the above teachings show a region of non-conductivity within a conductive inner surface of the wheel with a captivated shaft within the wheel having switch contacts that make and break contact with the conductive inner surface in response to the region of non-conductivity orbiting about the captivated shaft.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Sheng
October 26, 2005

AMR A. AWAD
PRIMARY EXAMINER
Amr A. Awad